2003P52885US UNKNOWN HEREWITH INFINEON TECHNOLOGIES, INC. AUTO-REFRESH MULTIPLE ROW ACTIVATION ATTY DKT. NO.: U.S. SERIAL NO.: FILED:

APPLICANT: TITLE:

INVENTOR: BRUCKE
EXPRESS MAIL No.: EV331235211US

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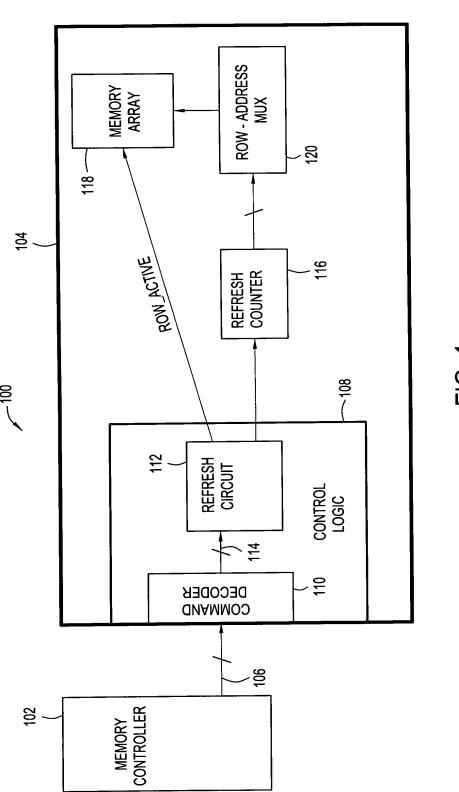


FIG. 1

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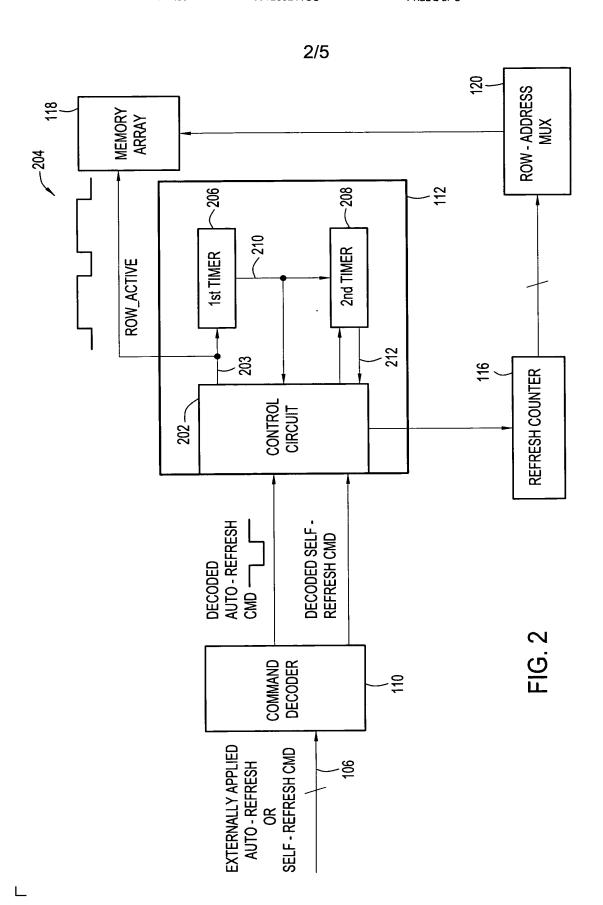
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APPLICANT: TITLE: INVENTOR: INFINEON TECHNOLOGIES, INC. AUTO-REFRESH MULTIPLE ROW ACTIVATION

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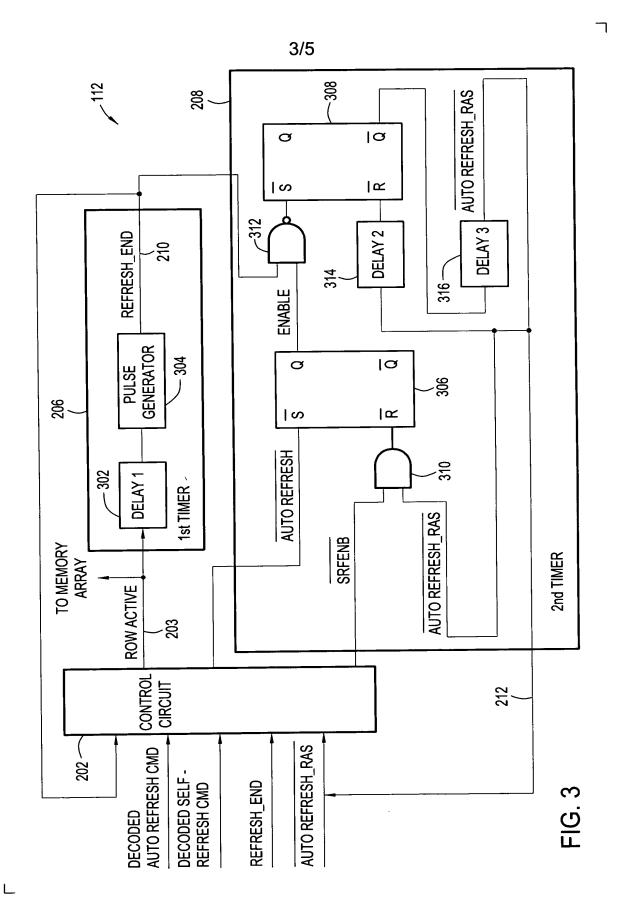
APPLICANT: INFINEON TECHNOLOGIES, INC.

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DESCRIPTION	Waiting for Auto Refresh Command from Memory Controller (MC)	AR Signal Pulses Low, Causing Row Active HI and Setting 1st Latch, Which Drives ENABLE HI	1st Refresh Continues Until Refresh End Pulse is Received	Refresh End Pulse Disables Row Active, Initates Precharge	Controlled by Delay After 2nd Latch	AR_RAS Goes Low at End of Precharge DELAY, Enabling Row Active and Resetting 1st Latch	2nd Refresh Continues Until Refresh End Pluse is Received	Refresh End Pulse Disables Row Active	Waiting for Auto Refresh Command from MC
ROW_ACTIVE	07	五	포	07	01	豆	壬	07	07
ENABLE	ГО	至	豆	豆	豆	9	豆	豆	9
REFRESH_END ENABLE ROW_ACTIVE	70	07	07	PULSE HI	07	9	01	PULSE HI	07
AUTO - REFRESH_RAS	H	五	뤂	宝	〒	PULSE LO	〒	토	로
AUTO - REFRESH	至	PULSE LO	豆	둪	로	至	豆	로	田
STATE	WAIT FOR AUTO - REFRESH (AR) CMD	AR CMD RECEIVED	1st REFRESH CYCLE	AR ENDS	PRECHARGE	PRECHARGE ENDS	2nd REFRESH CYCLE	AR ENDS	WAIT FOR AR CMD

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